

**Travel Support for the 2003 Open Meeting of the
Human Dimensions of Global Environmental
Change Research Community**

**Report Submitted on Project APN 2003-14
By the Center for International Earth Science Information
Network (CIESIN), Columbia University**

To the Asia-Pacific Network for Global Change Research



Final Project Report for APN Project

Travel Support for the 2003 Open Meeting of the Human Dimensions of Global Environmental Change Research Community (APN 2003-14)

- **Abstract**

This grant provided travel assistance to Asian researchers who applied for scholarships to attend the 2003 Open Meeting of the Human Dimensions of Global Environmental Change Research Community, which took place from 16-18 October 2003 in Montréal, Canada. Scholarships were granted through a competitive process, and were reviewed by a sub-committee of the Open Meeting's International Scientific Planning Committee. Because a major function of the Open Meetings is to bring together researchers from developing countries who otherwise would not be able to participate in a major international conference, it was felt particularly important to ensure participation of Asian scholars. As a result, the Open Meeting organizers raised close to two hundred thousand dollars, including the APN grant, to support travel fellowships for such scholars. A survey of APN-funded travel grant recipients revealed a wide range of benefits such as research collaboration, novel approaches to research, improved classroom teaching, and professional networking.

- **Project Information**

The project Principal Investigators are Dr. Robert S. Chen of the Center for International Earth Science Information Network (CIESIN) of Columbia University and Dr. Ben Malayang III of the University of the Philippines, Los Banos. The total amount funded was \$33,000. The duration was August 2003-February 2004. The project funded participants from China, Fiji, India, Indonesia, Nepal, the Philippines, and Vietnam.

- **Introduction**

The 2003 Open Meeting of the Human Dimensions of Global Environmental Change Research Community took place from 16-18 October 2003 in Montréal, Canada. It was the fifth and largest yet to be held, convening more than 400 leading scholars from around the world. The Open Meetings have consistently served as important vehicles to stimulate the networks in the regions where the meetings have been held. The Third Open Meeting, held in Shonan Village, Japan in 1999, was very successful in attracting scholars from the Asia-Pacific region and was therefore a major driver in building up and strengthening the regional and national Human Dimensions networks. As a result, it was felt particularly important to ensure participation of Asian scholars, both to ensure continuity, and because a major function of the Open Meetings is to bring together researchers from developing countries, and younger scholars from the U.S. and Europe, who otherwise would not be able to participate in a major international conference along with senior scientists. Feedback we have received from participants suggests that their participation in the meeting was highly enriching, and led to some potential areas of collaboration with scientists from other countries, and also helped to improve the classroom teaching in their home institutions.

- **Activities Conducted**

The primary activity, which was carried out by CIESIN, was to make travel reservations, book hotels, and provide per diems for the 12 APN-funded participants. This required quite a bit of communication with the grant recipients in advance of the meeting, some one-on-one assistance

during the meeting itself, and extensive follow up to ensure that the paper work was properly submitted.

- **Outcomes and Products**

The primary output, apart from the scientific exchange fostered by participation in the Open Meeting, were papers and posters presented by APN-funded participants. Papers by a number of the grant recipients are now online at http://sedac.ciesin.columbia.edu/openmtg/abs_search.jsp. They have been reminded to send their papers for inclusion in the online collection.

FIRSTNAME	SURNAME	COUNTRY	PAPER NOW ONLINE?
Li	Shen	China	Yes
Mahendra	Reddy	Fiji	
Nagaraja	Badenahally	India	
Suruchi	Bhadwal	India	Yes
Pushpam	Kumar	India	
Vijay Laxmi	Pandey	India	Yes
Mahesh	Patankar	India	
Dewayany	Sutrisno	Indonesia	Yes
Ram Bahadur	Maskey	Nepal	Yes
Maria Victoria O.	Espaldon	Philippines	
Maricel	Tapia	Philippines	
Ninh	Nguyen Huu	Vietnam	Yes

Among the expected outcomes listed in the proposal were the following: strengthening the Human Dimensions research community; fostering regional collaboration; fostering scientific exchange that enhances the understanding of global processes through promoting greater interaction among researchers from developed and developing countries; promoting interdisciplinary approaches to Human Dimension research questions; capacity building by bringing together a mix of senior and junior scholars, providing the opportunity to build transnational networks to facilitate problem-oriented, cross-disciplinary research relevant to global change. These benefits were largely confirmed by responses to a short survey of grant recipients, several responses to which are reported below.

Mahendra Reddy cited the following three major benefits:

- 1) Getting my paper peer reviewed: I have received number of comments from other participants on how the paper could be improved further. I have incorporated these comments in the paper and look forward to sending the paper to a journal.
- 2) Opportunity to attend other sessions: I had the opportunity to attend a number of other sessions where I gained new knowledge on methodology in particular. This would help me conducting research in my country. The knowledge gained from these presentations are now part of my lecture notes for a Development Economics course that I teach.
- 3) Networking: I have had preliminary discussions with some of the participants for collaborative research. We have not identified a topic yet but look forward to agreeing to a topic soon.

Ninh Nguyen Huu cited these benefits:

- 1) Networking: Working with scientists in IHDP framework, including the meeting of IHDP National Committee Chair/Focus point during the Open Meeting in Montreal.
- 2) Research collaboration with other participants: Research collaboration between CERED (Vietnam) and IISD (Canada) was discussed during the Open Meeting. A proposal is being

written with IISD (Canada) on climate vulnerability and agriculture in Indochina/Vietnam region.

Maria Victoria Espaldon cited these benefits:

1) From the meeting, I was able to meet Dr. Lilibeth Acosta-Michlik with the Potsdam Institute for Climate Impact Research. Initial discussion with Dr. Michlik resulted to an agreement that the University of Philippines-Diliman Department of Geography and University of Philippines-Los Banos with her institution as partner will come up with a research proposal on Community Vulnerability and Adaptation in Southeast Asia. As an initial activity, three colleagues from Germany will visit the Philippines from March 1-5, 2004.

2) We are now in the process of revitalizing our PhD program in Geography. The discussions and the materials that the conference covered are all very relevant in developing new core courses for the program. My lectures in class are more current because of my exposures to IHDP conferences and materials, including its network. We hope to strengthen the capacity of our institution to carry out research along global environmental change and promote enthusiasm in the university on research along our concerns.

Ram Badur Maskey reported the following benefits:

1) During this Meeting I had a great opportunity to meet various scientists and researchers in different scientific fields, and discuss and share my experience with them specially in the fields of natural resource and environmental management. I had a good time to discuss with some of them about the possible collaborative research on natural resource management and environmental issues since there is ample scope and urgent need for collaborative research in these fields in Nepal.

2) I had attended different plenary and panel sessions that were very interesting and informative and that was very useful to update myself in the fields of my interest. Some of the international scientists and researchers I had close contacts with during the Meeting were Prof. Donald Adams, State University of New York, Dr. Mizue Ohe, Kwansai Gakuin University, Japan, Dr. Astrid Bjornsen Gurung, MRI, Switzerland, Dr. Shobhakar Dhakal, Institute for Global Environmental Strategies, Japan, Dr. Lars Naess, Centre for International Climate and Environmental Research, Norway, Dr. William McConnell, Indiana University, plus many other scientists.

Lastly, Dewayany Sutrisno reported the following benefits:

1) I have obtained a valuable global network for my interest in environmental change and its socioeconomic effects. This network is very useful for exchanging of knowledge among the participants of the meeting, and also for sharing experience of technical aspects and management in order to solve the issues.

2) I met and had discussion during the meeting with many people from many part of the world that will be very useful for the future collaboration of my research activity. Though the collaboration has not yet been set up, it will be easier for me to develop in the future because I have been in the network now. I also have a discussion about a collaboration project in Southeast Asia that is still in progress to develop.

• **Conclusions**

Overall, the investment by APN in funding travel support for Asian participants appears to have paid rich dividends. We are confident that these meeting participants will go on to play leading roles in their home countries in promoting global change research.

- **Future Directions**

The 2005 Open Meeting will be an opportunity to once again support human dimensions researchers in the region – particularly younger and up-and-coming researchers. The benefits are clear. Getting them involved in global networks early helps their careers, and provides them with tools and perspectives from research being carried on outside their country/region that enriches their research and teaching. It also in many instances provides them with invaluable personal contacts with other researchers that results in joint research projects.

- **Appendix A: Program**

Wednesday, 15 October

Registration

Times: October 15th from 8:00am- 19:00; October 16th from 8:00am-17:00; October 17th from 8:30am-17:00; and October 18th from 8:30am- 17:00.

Location: Grand Salon, Wyndham Hotel

Reception

Time: 17:00-18:30

Location: McGill University Faculty Club, 3450 McTavish Street, McGill Campus (see map to McGill Campus on page 52)

Sponsored by: McGill School of Environment and the City of Montreal

Open to all registered participants, this opening reception is an opportunity to catch up with colleagues and to make new contacts before the meeting gets underway. The program includes a welcome by the Montreal Municipal Counsellor. The reception will be followed by a public lecture that is open to registered participants and the general public. A map and directions to the Faculty Club and McGill is provided in your registration packet, along with tickets that entitle the bearer to two drinks.

Public Lecture

Time: 18:30-20:00

Location: Moyse Hall, Arts Building, McGill Campus

Moderator: Dr. Marilyn Scott, McGill School of Environment

Speaker: Dr. Barbara Göbel, Executive Director, International Human Dimensions Programme on Global Environmental Change (IHDP), Germany

Thursday, 16 October

Opening Ceremony

Time: 8:15-8:30

Location: Grand Salon A & B

Welcoming remarks by Dr. Jim Fyles (Director of the McGill School of Environment), Dr. Roberta Balstad Miller (Director of CIESIN, Columbia University), Dr. Barbara Göbel (Executive Director of the IHDP), and Ms. Marcella Ohira-Schwarz (Outreach Officer, Inter-American Institute for Global Change Research)

Plenary: Poverty, Environment and Development

Time: 8:30-10:00

Room: Grand Salon A & B

Eliminating poverty constitutes one of the most important social goals, and is currently occupying a major role in the follow-up to the World Summit on Sustainable Development. Extreme poverty is still quite widespread, however, and therefore realistic progress will require both an understanding of the constraints opportunities for poverty alleviation. Toward that end, better understanding of the connections between poverty and environment is essential. What is the direction of causality? What dynamic patterns can be observed? What accounts for these patterns, and what are the implications for public policy?

Moderator: Dr. Patricia Romero Lankao, Metropolitan Autonomous University, Campus Xochimilco, Mexico

Speaker: Dr. David Runnalls, President of the International Institute of Sustainable Development (IISD), Canada

Commentator: Dr. Patricia Romero, Universidad de Mexico, Xochimilco

Coffee Break

Time: 10:00-10:30

Room: Grand Salon Foyer

Poster Session

Time: 10:00-17:30

Room: Grand Salon Foyer

**Posters are grouped according to keywords in the foyer just outside the Grand Salon.
Poster presenters are requested to stand by their posters during the morning and afternoon coffee breaks.**

Land use/land cover change

1. *The Impact of Recent Land-use Change On Tropical Wildlife Communities: The Case of Nairobi National Park, Kenya*
Author: Margaret W. Gichuhi, Kenya Polytechnic, Kenya

2. *Tragedy of Commons in the Pacific: Issues and Challenges in Transition.*
 Author: Mahendra Reddy, Centre for Development Studies, School of Social and Economic Development, University of the South Pacific, Fiji
 Coauthors: Biman C. Prasad
3. *Investigating alternatives to classification analyses: from models to landscapes*
 Author: Jane Southworth, Department of Geography & Land Use and Environmental Change Institute (LUECI), University of Florida, United States
4. *Ecosystems changes and society in Colombia*
 Author: Germán Márquez, National University Colombia - Environmental Studies Institute and Biology Department, Colombia
5. *Comparative Methodologies for Tracking Land Use/Land Cover Change in Israel, 1978-1999*
 Author: Daniel Orenstein, Center for Environmental Studies, Brown University, United States
 Coauthors: Jeffrey Albert, John Mustard, Steve Hamburg
6. *Effects of LUCC Resulted from 'Table Field' Fish Pound' Land Use Pattern in the Yellow River Delta of China*
 Author: Xuegong Xu, Department of Resources and Environmental Geosciences, Peking University, China
 Coauthors: Yanhua Liu, Yu He, Huiping Lin, Huifang Peng
7. *Land use problems in Bangladesh*
 Author: Sheikh Huq, Professor of Geography and Environment and Dean Faculty of Social Sciences, Jahangirnagar University, Savar, Dhaka-1342, Bangladesh., Bangladesh
8. *Priority issues for validation and future development of spatially explicit models of land use change*
 Author: Tom Veldkamp, LUCC Focus 3 office, Department of Environmental Sciences, Wageningen Univ., Netherlands
 Coauthors: Peter Verburg, Kasper Kok
9. *Remote sensing of the direction and sustainability of land use change and water management in the Jordan River basin of Israel*
 Author: Sarah Becker, Department of Environmental Analysis and Design, University of California, Irvine, United States
 Coauthors: Dele Ogunseitan
10. *Assessing change in urban land cover using satellite imagery: Manaus, Brasil (1992-2001)*
 Author: Rebecca Powell, Department of Geography, University of California, Santa Barbara, United States
 Coauthors: Dar Roberts, Laura Hess
11. *Crossing spatial analysis, households typologies and livestock economies to understand deforestation processes in the Brazilian Amazon. The case of Uruara in Para State*
 Author: Benoit Mertens, Center International in Forestry Research, Centre de Coopération Internationale en Recherche Agronomique pour le Développement, France
 Coauthors: M.G. Piketty, P. Pacheco, J. B. da Veiga, L.A. Ferreira, A. Venturieri, J.F. Tourrand
12. *Land Change Trajectories in the Tropics: Evidence from the Comparative Analysis of Case Studies*
 Keyword: land use/land cover change
 Author: William McConnell, LUCC Focus 1 Office, Indiana University, United States
 Coauthors: Eric Keys
13. *Reforestation and Parcelization in South-Central Indiana, United States*
 Author: Tom Evans, Center for the Study of Institutions, Population and Environmental Change; Indiana University, United States
14. *Accuracy of Land Use/Land Cover Change Models When Used to Determine Carbon Credits Awarded*
 Author: Louis Paladino, Clark University, United States

Population, Poverty and Environment

15. *Strategic Inventorying Of Human Population Impact In Over Pressurized Coastal Megacities*
Author: Samuel Oni, University of Lagos, Lagos, Nigeria, Nigeria
16. *Voices from the Grassroot: a study sustainable development from a developing world community based organisation's perspective*
Author: Lebogang P. Mashego, Monash University, South Africa
17. *Water as Driving Force for Poverty Alleviation and Environment Security in India*
Author: R. B. Singh, Department of Geography, Delhi School of Economics, University of Delhi, Delhi-110007, India
18. *Settler Welfare and Land Use in the Ecuadorian Amazon*
Author: Alisson Barbieri, Department of City and Regional Planning and Carolina Population Center, University of North Carolina at Chapel Hill, United States
Coauthors: Carlos Mena, Christine Erlien, Richard E. Bilsborrow, Bolier Torres

Science-Policy Interface

19. *Assessing the relative efficiency of shrimp trawling: co-management in an offshore fishery in the Upper-Gulf of California, Mexico.*
Author: Hernan Aubert, The University of Arizona, United States
20. *From independent experts to integrative partners: the diversity of scientific credibility in a changing world*
Author: Lorrae van Kerkhoff, National Centre for Epidemiology and Population Health, Australian National University, Australia
21. *Socially constructed process for global change research programs*
Author: Toshihide Takeshita, Azabu University, Japan

Sustainable Development

22. *System of Environmental Indicators for Water Quality and Agriculture*
Author: Markus Vinnari, Turku School of Economics and Business Administration, Finland Futures Research Centre, Finland
Coauthors: Luukkanen Jyrki
23. *Water Resources Management in the Eastern European Countries 'Necessity and Problems*
Author: Todor Hristov, Institute of Water Problems at the Bulgarian Academy of Sciences, Bulgaria
Coauthors: Vania Ioncheva, Lindsay Patel
24. *The social, Economic and Environmental Impacts of the Sand Dams of Kitui, Kenya*
Author: Mutua Isika, Department of Sociology, University of Nairobi., Kenya
25. *Effect of the Stock of Human Capital on the Sustainability of Chinese Society with Economies in Transition*
Author: Li Shen, Institute of Population Research, Peking University, China
26. *Application of multispectral satellite remote sensing to management and monitoring of certified forestry in the tropics*
Author: Jane Read, Syracuse University, United States
27. *Responding to Deteriorating Economies and Environments: The Case of Marine Fishereis in the Mid-Gulf of California*
Author: Marcela Vasquez-Leon, Bureau of Applied Research in Anthropology, The University of Arizona, United States

Trade and the Environment

28. *Market Shocks and Climatic Variability Effects on Small Coffee Growers in Guatemala: A Case Study on Adaptation Strategies in San Pedro La Laguna, Guatemala.*
 Author: Edwin Castellanos, Universidad del Valle de Guatemala, Guatemala
 Coauthors: Daniela Diamente
29. *Environmental and Social Ramifications of Volatile Coffee Markets in Western Honduras*
 Author: Catherine Tucker, Indiana University, United States
 Coauthors: Jane Southworth
30. *Corporate-Community Partnerships in Amazonian Indigenous Communities*
 Author: Carla Morsello, School of Environmental Sciences, University of East Anglia and Capes (Brazil), Brazil

Concurrent Panel Sessions

Time: 10:30 - 12:00

Thu-am-01 Fragile Ecosystems

Room: Alfred Rouleau A

Chair: Bill McConnell, LUCC Focus 1 Office, Indiana University, United States

Human Dimensions in Sustainable Land Use Management in Degraded Land Areas of Nepal

Author: Ram Bahadur Maskey, Land Care Center -Nepal (LCCN), Nepal

Coauthors: Binod P. Sharma, Madhav Joshi

The Mountain Research Initiative: An Integrated Approach to Address Global Change Issues in Mountain Regions

Author: Astrid Bjoernsen Gurung, Mountain Research Initiative (MRI), Switzerland

Coauthors: Mel Reasoner, Harald Bugmann

Risk Perception Study on Garbage Issue and Coastal Pollution in Holbox Island, Yucatan, Mexico

Author: Mizue Ohe, School of Policy Studies, Kwansai Gakuin University, Japan

Coauthors: Kim Chi Tran, Eloy Gil Trava

An assessment of historical and contemporary livelihood strategies of the people in changing climate: A case of Nepal Himalaya.

Author: Sharad Adhikary, Himalayan Climate Centre, Nepal

Thu-am-02 Environmental Change and Human Health

Room: Alfred Rouleau B

Chair: Deborah Balk, CIESIN, Columbia University, United States

Impacts of climate change and variability on some diseases in the tropical region: an example of the strategies for adaptation to climate variability and change. Case study: Cuba

Author: Paulo Lazaro Ortiz Bulto, Center of Climate, Cuba

Coauthors: Antonio Perez, Alina Rivera, Vladimir Guevara

Integrating Scientific, Local and Indigenous Knowledge for Management and Decision-making on Environment, Climate and Health Issues

Author: Nancy Maynard, NASA Goddard Space Flight Center, United States

Coauthors: Boris Yurchak

Air Quality and Pulmonary Function: A New England Approach to Integrated Assessment

Author: Cameron Wake, University of New Hampshire, United States

Coauthors: Tom Kelly, Jeffrey Salloway, Adam Wilson, Robert Woodward

Household & Community Responses To Arsenic Contamination In Bangladesh
 Author: Alex Pfaff, Columbia University, United States
 Coauthors: M. Madajewicz

Thu-am-03 Rural Livelihoods and Climate Variability: Insights for Adaptation to Longer Term Change

Room: Argenteuil

Chair: Nancy Beller-Simms, Office of Global Programs, National Oceanographic and Atmospheric Administration (NOAA), United States
 Discussant: Caitlin Simpson, Office of Global Programs, NOAA, United States

Diversification of economic portfolios to deal with climate variability: Case study of livelihood strategies in two Andean communities.

Author: Carolina Barreda, International Potato Center, Peru
 Coauthors: Corinne Valdivia, Roberto Quiroz

Living with Uncertainty: Approaches to Improve Decision Making using Probabilistic Climate Information in Uganda

Author: Jennifer Phillips, Bard Center for Environmental Policy, United States
 Coauthors: Ben Orlove

Institutional Adaptations to Climate Variability and Climate Change: A Latin American Comparison
 Author: Tim Finan, University of Arizona, Bureau of Applied Research and Anthropology, United States

Coauthors: Maria Carmen Lemos, Donald R. Nelson, Alejandro Leon, Milka Castro, Miguel Bahamondes, Paulina Aldunce

Managing Time and Space: Risk Diversifications Due to Climate Variability among Farmers of the Sudan-Sahel Region (Burkina Faso).

Author: Carla M. Roncoli, University of Georgia, United States
 Coauthors: Gerrit Hoogemboom, Keith Ingram, Christine Jost, Paul Kirshen, Frederic Ouattara, Moussa Sanon, Judith Sanfo, Leopold Some, Pascal Yaka

South African livestock systems and adaptation to climate variability: Lessons for long-term climate change

Author: Kathy A. Galvin, Department of Anthropology, Colorado State University, United States
 Coauthors: R.B. Boone, P.K. Thornton

Thu-am-04 Global Politics of Carbon Emissions

Room: Picardie A

Chair: Oran Young, University of California, Santa Barbara, United States

Globalizing the local and localizing the global: the links between global and local in environmental awareness and in support for international treaties

Author: Solange Simoes, Federal University of Minas Gerais/ Brazil and Institute for Social Research/ University of Michigan, United States
 Coauthors: Paul Mohai and Steve Brechin

Intercultural Images of Nature and Perceptions of Climate Change

Author: Dörthe Krömker, Center for Environmental Systems Research, University of Kassel, Germany

Climate change policymaking: A comparison of Norway, Germany, and the United States.

Author: Guri Bang, CICERO, Norway

Historical CO2 Emissions and Concentrations (1700-1990) due to land-use change by country

Author: Christiano Pires de Campos, International Virtual Institute on Global Change, Brazil
 Coauthors: Maria Silvia Muylaert, Luiz Pinguelli Rosa

The IPCC as Process: The Politicization of Science, The Scientization of Politics or Something in Between?

Author: Alison Shaw, Sustainable Development Research Initiative (SDRI), University of British Columbia, Canada

Thu-am-05 Measuring Vulnerability and Adaptability: Conceptual and Methodological Challenges (GECHS)

Room: Picardie B

Chair: Mike Brklacich, Carleton University, Canada

Discussant: Hans Bohle

Vulnerability to Multiple Stressors in Southern Africa: The SAVI project

Author: Karen O'Brien, CICERO, Norway

Coauthors: Coleen Vogel

Are Vulnerability and Adaptability Two Sides of the Same Coin? A Critical View of Climate Impacts Research

Author: Ane Schjolden, Cicero (Center for International Climate and Environmental Research), Norway

Coauthors: Karen O'Brien, Siri Eriksen, Lynn P. Nygaard

An indicator approach to climate change vulnerability in India: Strengths and limitations

Author: Guro Aandahl, CICERO Center for Climate and Environmental Research in Oslo, Norway

Coauthors: Robin Leichenko

Positioning Vulnerability within Climate Change Research: Voices from the Farm

Author: Mike Brklacich, Department of Geography & Environmental Studies, Carleton University, Canada

Thu-am-06 S&T Private-Public Partnerships for Sustainable Development: Toward What End? With What Means?

Room: Auteuil A

Chair and Discussant: David Cash, Harvard University, United States

S&T Private-Public Partnerships for Sustainable Development: Toward What End? With What Means?

Author: David Cash, Harvard University, United States

Sub-global assessments: Ensuring usefulness, credibility, and legitimacy in the Alternatives to Slash-and-Burn crosscutting assessment

Author: Dagmar Timmer, World Agroforestry Centre (ICRAF), Kenya

Coauthors: Thomas Tomich, Cheryl Palm

Scaled Partners: Public-Private Interactions for "Sustainable" Mineral Development

Author: Saleem Ali, University of Vermont, United States

Commercialization of Climate Forecast Technology: Role of the Private, Public and End-user Intersections

Author: Maryam Golnaraghi, Climate Risk Solutions, Inc., United States

Thu-am-07 Consortium for Atlantic Regional Assessment (CARA): Complex Coupled Systems

Room: Anjou A

Chair: Rachael Dempsey, Penn State University Institutes for the Environment, United States

Designing Wetland Conservation Strategies under Climate Change

Author: Jiayi Li, Penn State University, United States

Coauthors: James Shortle, Carl Hershner

Comparing How Climate Change and Development Stressors Influence Quality-of-Life Tradeoffs for Residents of Cape May County, New Jersey

Author: Jennison Kipp, Penn State University, United States

Coauthors: Ann Fisher, Robert O'Connor, Russell Blair, Richard Ready, Brent Yarnal and Richard Stedman

The Forest Watch Program: A Tool

Author: Barrett Rock, Complex Systems Research Center, University of New Hampshire, United States

Coauthors: Ryan Huntley

Optimal Investment in Ecological Conservation and Restoration Projects under Climate Change: A Spatial Intertemporal Analysis

Author: Koel Ghosh, Department of Agricultural Economics and Rural Sociology, Pennsylvania State University, United States

Coauthors: James S. Shortle, Carl Hershner

Stakeholder Participation in Integrated Assessments: a CARA case study

Author: Rachael Dempsey, Penn State University Institutes for the Environment, United States

Coauthors: Ann Fisher

Thu-am-08 Decentralization and Environmental Governance

Room: Anjou B

Chair: Alejandro León, Department of Environmental Sciences and Renewable Natural Resources, University of Chile, Chile

Improving the Quality of Life in the Rural Areas of India by Incorporating People's Preferences: A Case Study

Author: Neeraj Sharma, National Bank for Agriculture and Rural Development, Regional Office, Lucknow, India

Coauthors: Vijay Laxmi Pande

Civil participation for disaster prevention in Chile

Author: Alejandro León, Department of Environmental Sciences and Renewable Natural Resources, University of Chile, Chile

Coauthors: Paulina Aldunce

Democratic Decentralization of Natural Resources: Institutionalizing Popular Inclusion

Author: Jesse Ribot, World Resources Institute, United States

Decentralization and Forest Management in Honduras, Guatemala and Nicaragua

Author: Anne Larson, Independent Scholar, Nicaragua

Thu-am-09 Regional Cooperation and Climate Change

Room: Auteuil B

Chair: Marcos Adamson-Badilla, Center for Economic and Environmental Studies, Costa Rica

Clean Development Mechanism (CDM) & Indian Forests: Opportunities and Challenges

Author: Maitreyi Mandal, Indian Institute of Management Calcutta, India

Global Challenges and Regional Responses in North America: U.S.-Canadian Regional Cooperation on Climate Change Action

Author: Henrik Selin, Dept. of Urban Studies and Planning, Massachusetts Institute of Technology, United States

Coauthors: Stacy VanDeveer

Bridging the Gap between National Development Policies and Dealing with Climate Change

Author: Rutu Dave, National Institute for Public Health and Environment- Environmental Assessment Agency, Netherlands

Coauthors: Rajesh Nair, P.R. Shukla, Rob Folkert, Marcel Kok

Economic Growth, energy demand and greenhouse effect gases emissions in Costa Rica: econometric modeling for decision making

Author: Marcos Adamson-Badilla, Center for Economic and Environmental Studies, Costa Rica

Regional versus Global Cooperation for Climate Control

Author: Camilla Bretteville, CICERO Center for International Climate and Environmental Research - Oslo, Norway

Coauthors: Jon Hovi, Fredric Menz

Plenary: Patterns of Development and Sustainability

Time: 14:00 - 15:30

Room: Grand Salon A & B

Understanding trade-offs among economic development, social development and environmental sustainability constitutes a major thrust of the Human Dimensions research program. How are these tradeoffs resolved among different social groups, in different geographic locations, and in different economic sectors? Is there a feasible win-win future for the developing world? Or is the right to grow economically a matter of international bargaining power in a fight over ecological resources? This plenary session addresses these and other questions concerning sustainability and development.

Moderator: Mr. Jasper Grosskurth, International Centre for Integrative Studies (ICIS), Netherlands

Speaker: Dr. Mohan Munasinghe, Executive Director, Munasinghe Institute for Development, Sri Lanka

Commentator: Dr. Barry Smit, Canada Research Chair in Global Environmental Change, Department of Geography, University of Guelph, Canada

Coffee Break

Time: 15:30 -16:00

Room: Grand Salon Foyer

Concurrent Panel Sessions

Time: 16:00 - 17:30

Thu-pm-01 The Georgia Basin Futures Project: Participatory Integrated Assessment at a Regional Scale

Room: Alfred Rouleau A

Chair: John Robinson, Sustainable Development Research Initiative, University of British Columbia, Canada

Interactive Science in the Georgia Basin, Canada: Combining expert knowledge and public values and preferences

Author: John Robinson, Sustainable Development Research Initiative, University of British Columbia, Canada

The Impact of GB-QUEST on Cultural Models of Sustainability

Author: Robert VanWynsberghe, Institute of Health Promotion Research, University of British Columbia, Canada

Coauthors: Theresa Satterfield, Jennifer Shapka, Misty Lockhart, Yolanda Yim, Ginnie Holden

Georgia Basin Digital Library: Connecting People with Ideas and Ideas with Place
 Author: Sonia Talwar, Department of Geography, University of British Columbia, Canada
 Coauthors: Murray Journeay, Rob Harrap, Boyan Brodaric, Joost van Ulden, Ryan Grant, Shannon Denny

Georgia Basin QUEST: Model Development and Evaluation
 Author: Jeff Carmichael, Sustainable Development Research Initiative, University of British Columbia, Canada

Deliberative governance and participatory integrated assessment: is there a link?
 Author: James Tansey, Sustainable Development Research Initiative, University of British Columbia, Canada

Thu-pm-02 Policy-Technology Interactions in Mitigating the Environmental Burden of Human Activities

Room: Alfred Rouleau B

Chair: Ted Parson, Harvard University, United States

Discussant: Rene Kemp

Industrial Transformation, a challenge for a new breed of engineers
 Author: Karel F. Mulder, Delft University of Technology, Netherlands

The Effect of Government Actions on Innovation in SO₂ Control Technology
 Author: Margaret Taylor, Goldman School of Public Policy, University of California, Berkeley, United States

Industry and Government Strategies Related to Technical Uncertainty in Environmental Regulation: Pollution from Automobiles
 Author: Jennie Stephens, Kennedy School of Government, Harvard University, United States

Assessing the cost of managing carbon
 Author: David Keith, Department of Engineering and Public Policy, Carnegie Mellon University, United States

Thu-pm-03 Rural Livelihoods and Climate Variability: Insights for Adaptation to Longer Term Change

Room: Argenteuil

Chair: Nancy Beller-Simms, Office of Global Programs, National Oceanographic and Atmospheric Administration (NOAA), United States

The Human Dimensions of Droughts and Floods in West Africa: 1968-2000
 Author: Simon Ojo, Department of Geography, University of Lagos., Nigeria

Help or Hinder? The Role of Seasonal Forecast Information in Adapting to Climate Variability Among Smallholder Farmers in South Africa
 Author: Gina Ziervogel, , University of Cape Town and Stockholm Environmental Institute, South Africa
 Coauthors: Emma Archer

Coping and adapting to climate variability in the Andes: strategies and local knowledge
 Author: Corinne Valdivia, Department of Agricultural Economics, University of Missouri Columbia, United States
 Coauthors: Jere Gilles

Adapting to Climate Change and Climate Variability: Decision-Making Under Uncertainty by Farmers in Zimbabwe
 Author: Anthony Patt, Potsdam Institute for Climate Impact Research and Boston University, Germany
 Coauthors: Pablo Suarez

Coping with climate variability in central Argentina: an analysis of farmers' attitudes toward risk

Author: Andrea del Valle Rivarola, Universidad Nacional de Río Cuarto, Argentina

Coauthors: Marta G. Vinocur, Roberto A. Seiler

Thu-pm-04 A New Approach to Assessing Vulnerability to Climate: Results from the Security Diagrams Project

Room: Picardie A

Chair: Joe Alcamo, Center for Environmental Systems Research, University of Kassel, Germany

Using of Fuzzy Set Theory to address the uncertainty of susceptibility to drought

Author: Frank Eierdanz, Center for Environmental Systems Research, University of Kassel, Germany

Coauthors: Joseph Alcamo, Dörthe Krömker

The socio-economic dimension of assessing vulnerability to extreme climate events

Author: Lilibeth Acosta-Michlik, Potsdam Institute for Climate Impact Research (PIK), Germany

Coauthors: Richard J.T. Klein

Vulnerability to Drought: How Different are the Different Disciplinary Perspectives?- Abstract for the proposed panel: A New Approach to Assessing Vulnerability to Climate: Results from the Security Diagrams Project

Author: Joe Alcamo, Center for Environmental Systems Research, University of Kassel, Germany

Coauthors: Lilibeth Acosta-Michlik, Alexander Carius, Frank Eierdanz, Richard Klein, Dörthe Krömker, Dennis Tänzler

Assessing susceptibility of societies: A political science perspective

Author: Dennis Taenzler, Adelphi Research, Germany

Thu-pm-05 Methodologies for Assessing Vulnerability and Sustainability

Room: Picardie B

Chair: Suruchi Bhadwal, TERI, New Delhi, India

A new approach for quantifying relative vulnerability, applied to an irrigated agricultural system in the Yaqui Valley, Mexico

Author: Amy Lynd Luers, Stanford University, United States

Coauthors: D.B. Lobell, C.L. Addams, L.S. Sklar, P.A. Matson

Human Dimensions of Global Change Research in Southwestern Kansas

Author: Lisa M.B. Harrington, Department of Geography, Kansas State University, United States

Coauthors: John A. Harrington, Jr., Max Lu, Douglas G. Goodin, David E. Kromm, Stephen E. White

Towards a Robust Research Protocol for Local Dimensions of Global Environmental Change Research: Methodological Challenges Considered

Author: Ke Chen, Clark University, United States

Taking Stock of Increasing Integrative Analytical Capability in Vulnerability Research

Author: Kirstin Dow, Stockholm Environment Institute, University of South Carolina, Sweden

Coauthors: Roger Kasperson

Thu-pm-06 Designing Landcover Change Models to Meet Policy Needs

Room: Auteuil A

Chair: Tom Evans, Indiana University, United States

Discussant: Brent Yarnal, Pennsylvania State University, United States

Uncertainty in Extrapolations of Predictive Land Change Models

Author: Robert G. Pontius Jr., Clark University, United States

An Open Content Framework for the Production of Landcover Change Models

Author: Charles Schweik, Department of Natural Resources Conservation and Center for Public Policy and Administration, University of Massachusetts, Amherst, United States

Coauthors: J. Morgan Grove, Tom P. Evans

A vision for collaborative, web-based global change modelling

Author: Ferdinando Villa, Gund Institute for Ecological Economics, University of Vermont, United States

Coauthors: Roelof M.J. Boumans

Influence of Category Aggregation on Land-Use/Cover Change Signals

Author: Nicholas Malizia, Clark University, United States

Coauthors: R.G. Pontius, M.L. Cheuk

A New Method For Comparing Land Cover Change Events

Author: Glen Green, Center for the Study of Institutions, Population, and Environmental Change (CIPEC), Indiana University, United States

Thu-pm-07 Global Environmental Change and Coastal Systems: A Microcosm of Coupled Human-Environmental Systems

Room: Anjou A

Chair: Mike Brklacich, Carleton University, Canada

Communities of fish and Communities of fishers: understanding human-ecosystem interactions in the coastal ocean

Author: Rosemary Ommer, GLOBEC SSC, Coasts Under Stress Research Project, Canada

Coauthors: Barbara Neis, R. Ian Perry

Institutional Dimensions of Global Environmental Change in Coastal and Marine Systems

Author: Syma Ebbin, Institutional Dimensions of Global Environmental Change (IDGEC), United States

Coauthors: Are Sydnes

Environmental and Human Dimensions of Coastal Change (A challenging perspective from the new LOICZ project)

Author: Hartwig Kremer, IGBP/LOICZ (Land Ocean Interactions in the Coastal Zone), Netherlands

Reducing Vulnerability of Coastal Communities to Global Environmental Change

Author: Maureen Woodrow, Global Environmental Change and Human Security Project, Carleton University, Canada

Coauthors: Mike Brklacich

Global Environmental Change and Caribbean Food Systems

Author: David Brown, CARICOM Caribbean Regional Fisheries Mechanism, Belize

Thu-pm-08 Biophysical and Socioeconomic Aspects of the 2001 and 2002 Droughts in Canada

Room: Anjou B

Chair: Aston Chipanshi, Agriculture & Agri-Food Canada, Canada

The Canadian National Drought Study

Author: Barrie Bonsal, National Water Research Institute, Environment Canada, Canada

Coauthors: Elaine Wheaton, Phil Adkins

Assessing Adaptive Responses to the 2001/2002 Droughts in Canada

Author: Grace Koshida, Environment Canada, Adaptation and Impacts Research Group, Canada

Coauthors: Elaine Wheaton, Virginia Wittrock

Beyond Assessing the Socio-Economic Implications of the 2001/2002 Drought in Canada

Author: Suren Kulshreshtha, University of Saskatchewan, Canada

Coauthors: Charles Grant, Gord Bell, George Brown

Climate Change and Agriculture: Food for Thought

Author: Donald L. Smith, Plant Science Department, McGill University, Macdonald Campus, Canada

Thu-pm-09 Consumption and Environment

Room: Auteuil B

Chair: Marina Fischer-Kowalski, IFF Social Ecology, Austria

Scenarios of Human Driving Forces: The Relevance of Alternative Lifestyles

Author: Karl-Heinz Simon, Center for Environmental Systems Research, University of Kassel, Germany

Poverty and the Global Environmental Change. The Perspective of Transition Countries in Central and Eastern Europe.

Author: Livia Bizikova, Institute for Forecasting, Slovak Academy of Sciences, Slovakia
Coauthors: Tatiana Kluvankova-Oravska

The Age and Art of Stewardship - Awareness and Empathy in Action

Author: Kathleen May D. Kevany, United Nations University, Institute of Advanced Studies, Japan

Visualization of Energy Consumption in Schools: A New Way to Support Environmentally Friendly Behaviour

Author: Dr. Michael Scheuermann, Department of Psychology, University of Freiburg, Germany
Coauthors: Hans Spada, Andrea Bender, Ines Froschmeier, Eva Staender, Simone Traber

The role of Eco-Labeling in enhancing sustainable consumption: Theoretical considerations and empirical evidence from the food, electricity and textile sectors

Author: Katharina Sammer, Institute for Economy and the Environment (IWÖ-HSG), University of St. Gallen, Switzerland

Coauthors: Rolf Wüstenhagen, Rita Pant

Friday, October 17

Plenary: Governance of Natural Resource Issues

Time: 8:30-10:00

Room: Grand Salon A & B

We have always known that institutions of governance play a major role in determining how societies use or misuse natural resources, how winners and losers are chosen, and how complex tradeoffs are decided. Much Human Dimensions research over the past decade has attempted to move beyond these generalities to more specific understanding. What kinds of institutions are most effective, under what circumstances, and with respect to which issues? This plenary session is intended to help us take stock of what we have learned on these matters and help chart a course for further progress.

Moderator: Dr. Peter Brown, McGill School of Environment, Canada

Speaker: **Dr. Leena Srivastava, Executive Director, The Energy and Resources Institute, India**

Commentator: **Dr. Leslie King, Dean of Environment, University of Manitoba, Canada**

Coffee Break

Time: 10:00-10:30

Room: Grand Salon Foyer

Poster Session

Time: 10:00-17:30

Room: Grand Salon Foyer

Posters are grouped according to keywords in the foyer just outside the Grand Salon. Poster presenters are requested to stand by their posters during the morning and afternoon coffee breaks.

Industrial Transformation and Consumption and Environment

1. Economic Growth with Environment and Physical Capital

Author: Soumyananda Dinda, Indian Statistical Institute, India

2. Coherence and the order of change in environmental management

Author: Erik Hagelskjær Lauridsen, Department of Manufacturing Engineering and Management, Section on Innovation & Sustainability, Technical University of Denmark, Denmark

Coauthors: Ulrik Jørgensen

Institutions and Governance

3. Lack of Social Capital and Failure in Natural Resource Management in the Developing Countries

Author: Sylvia Haladjian, Saint Joseph University, Faculty of Human Sciences (Lebanon); International Sociological Association, Research Committee on Sociology of Work and Research Committee on Environment and Society., Lebanon

4. Using network analysis to improve forecast use among vulnerable farmers: The Case of Bolivia

Author: Rigoberto Espejo, Proyecto Variabilidad Climatica y Bienestar familiar en los Andes, Bolivia
Coauthors: Jere Gilles, Corinne Valdivia, Christian Jetté

5. Post-Kyoto burden sharing

Author: Jyrki Luukkanen, Finland Futures Research Centre, Finland

8. *International standard for evaluating environmental education and research*
Author: Yoshiro Higano, Tsukuba University, Japan
 9. *Formation of Sustainable Science and education in developing countries*
Author: Hari Srinivas, United Nations Environment Programme, Japan
 10. *Communal resource tenure arrangements for conservation and sustainable development in the Gulf of California region, Mexico*
Author: Roberto Enriquez-Andrade, Faculty of Marine Sciences, Autonomous University of Baja California, Mexico
 11. *The Impetus for Decentralization: Understanding Variations in the Devolution of Authority over Natural Resources in Botswana and Uganda*
Author: Amy Poteete, University of New Orleans, United States
 12. *Questions of Power, Profit, or Trust(s)?: Devolution in Community Wildlife Conservation in East Africa*
Author: John Galaty, McGill University, Canada
 13. *Defining Maritime Boundaries: Questions of environment, international politics, and local communities*
Author: Joan Marshall, McGill University, Canada
 14. *Organizational dimensions of decentralization: the case of forest management in Mexico*
Author: Emmanuel Raufflet, University of Montreal, Canada
 15. *Problem of Fit between Institutions and Environment: Empirical Evidences from the Rhine River Basin*
Author: Tun Myint, Indiana University, Bloomington, IN, USA, United States
 16. *Fitting institutions to fisheries co-management: the Forum of Patos Lagoon case study*
Author: Daniela Kalikoski, Department of Oceanography, Federal University of Rio Grande, Brazil
Coauthors: Marcelo Vasconcellos, Les Lavkulich
 17. *Habitat Destruction, Economic Land-Use and Democratic Mediation*
Author: Rafael Ziegler, Department of Philosophy and McGill School of Environment, Germany
 18. *Challenges Ahead: Stabilizing Resource Use Rights and Other Sustainability Incentives in the Philippine Community-Based Forest Management*
Author: Ernesto Guiang, Philippine Environmental Governance Project, Philippines
- Integrated Assessment***
19. *The practice of strategic environmental assessment in Canada: Implications for energy policy development*
Author: Bram Noble, University of Saskatchewan, Canada
 20. *Hydroelectric dams and sustainable development on the Xingu river (Brazil)*
Author: Jose Drummond, Universidade de Brasilia, Brazil
Coauthors: Elimar Nascimento
 21. *Assessing the Effectiveness of Biodiversity Conservation in India*
Author: Shalini Gupta, Clark University, United States
 22. *An assessment of climate scientist-user interactions in linking climate science and agricultural management in Zimbabwe*
Author: Hector Chikoore, University of Zululand, South Africa/Meteorological Service, Zimbabwe, South Africa
Coauthors: Marshall Mdoka
 23. *Human Dimensions in Vegetation Recovery from Degraded Land Areas, Land Use Management and Wasteland Development along the Coastal India*
Author: Ramasamy Krishnamoorthy, Department of Applied Geology, University of Madras, India
Coauthors: S. Ramachandran

24. *Reviewing Participatory Approaches in Global Change Research*
 Author: Bernd Siebenhuener, Carl von Ossietzky University Oldenburg, GELENA Research Group, Germany
25. *Modeling Vulnerability of Coastal Communities to Hurricane Storm Surge After Sea-Level Rise: A Case Study of Hampton Roads, Virginia*
 Author: Lisa Rygel, Consortium for Atlantic Regional Assessment; Department of Geography, Pennsylvania State University, United States
26. *Land Use/Land Cover Mapping in Application to Integrated Assessment of the Urban Environment*
 Author: Sergey Kakareka, Institute for Problems of Natural Resources Use & Ecology, National Academy of Sciences of Belarus, Belarus
 Coauthors: V. Khomich, T. Kukharchyk
27. *Industry Induced Land Use Changes*
 Author: Nila Rekha Peter, Central Institute of Brackishwater Aquaculture, India
 Coauthors: N.K. Ambujam, D. Deboral Vimala, M. Jayanthi, Nagamani
28. *An Integrated Assessment of Climate Change Impacts, Vulnerability and Adaptation in Watershed Areas and Communities in Southeast Asia (AIACC AS21)*
 Author: Sheila Sophia N. Roy, Environmental Forestry Programme, College of Forestry and Natural Resources, University of the Philippines Los Baños, Philippines
 Coauthors: Rodel D. Lasco
29. *Ecosystems and People: The Philippine MA Sub-Global Assessment*
 Author: Richievel Arche, Environmental Forestry Programme, College of Forestry and Natural Resources, University of the Philippines Los Baños, Philippines
 Coauthors: Rodel D. Lasco, Maria Victoria O. Espaldon
- Urban Sustainable Development**
30. *Urban Hybridisation and Peri-Urban Regions in Large Third World Cities*
 Author: Marja Järvelä, University of Jyväskylä, Finland, Finland
 Coauthors: Susanna Myllylä, Eva-Marita Rinne
31. *Sustainable Water Management Strategies in Water Stress Areas of Metropolitan Delhi*
 Author: Surinder Aggarwal, University of Delhi, India
 Coauthors: Rani Sahay
32. *Counteractions for urban heat island in regional autonomies: Activities in councils of MoE, Japan*
 Author: Toshiaki Ichinose, National Institute for Environmental Studies, Japan
 Coauthors: T. Mikami, K. Niitsu, Y. Hirano
33. *Cities Are The Key to Sustainability: An Exploration of the Melbourne Principles*
 Author: Danny Epstein, Environmental Protection Branch, Environment Canada, Canada
34. *Asian Early Warning System For Food*
 Author: Kan-ichiro Matsumura, Kwansai Gakuin University, University of Tokyo, and National Institute for Environmental Studies, Japan
 Coauthors: Kiminori Gemba, Yasutomi Nakano, Toshiaki Ichinose, Ryosuke Shibasaki
35. *Urbanization, environmental change and food security in Sub-Saharan Africa*
 Author: Kwasi Nsiah-Gyabaah, Sunyani Polytechnic, Ghana
- Vulnerability and Resilience**
36. *Vulnerability of India to Extreme Climate Events: The Case of Cyclonic Storms*
 Author: Kavi Kumar K.S., Madras School of Economics, India
37. *Overall Vulnerability of the Uruguayan Coastal Fishery System to Global Change in the Estuarine Front of the Rio de la Plata*
 Author: Gustavo Nagy, Depart. de Ecología, Facultad de Ciencias, UdelaR, Uruguay
 Coauthors: G. Sención, W. Norbis, A. Ponce, G. Saona, R. Silva, M. Bidegain, V. Pshennikov

38. *Assessment of High-Risk Natural Disaster Hotspots - Landslide Analysis*

Author: Farrokh Nadim, International Centre for Geohazards / Norwegian Geotechnical Institute, Norway

Coauthors: Oddvar Kjekstad

Concurrent Panel Sessions

Time: 10:30 -12:00

Fri-am-01 Civil Society Movements and Environmental Change

Room: Alfred Rouleau A

Chair: Richard Soare, McGill & Concordia Universities, Canada

Have we arrived? Part II - Common methodology, human dimensions and natural resource research

Author: Delali Benjamin K. Dovie, Restoration & Conservation Biology Research Group, University of the Witwatersrand, South Africa

Promote, Protest, Partner: The Diverse Roles of Non-governmental Organizations in Addressing Global Environmental Change

Author: Vanessa Timmer, Ph.D. candidate, University of British Columbia, Fulbright Research Fellow, Harvard University, United States

Who Weeps for the Trees? Environmental Advocacy, Indigenous People and Collective Responsibility

Author: Richard Soare, McGill & Concordia Universities, Canada

Coauthors: Claude Peloquin, David M. Green

Fri-am-02 Multilevel Environmental Governance

Room: Alfred Rouleau B

Chair: Ian Rowlands, Faculty of Environmental Studies, University of Waterloo, Canada

Discussant: Antonio Contreras

Promoting Renewable Electricity in the European Union: Between Subsidiarity and Harmonisation

Author: Ian Rowlands, Faculty of Environmental Studies, University of Waterloo, Canada

Jouni Paavola, Adapting to Climate Change in Tanzania: Institutional Arrangements and Justice in Multi-Level Environmental Governance

Author: Jouni Paavola, Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia, United Kingdom

Beyond Regimes: Cities and the Multilevel Governance of Climate Change

Author: Michele Betsill, Department of Political Science, Colorado State University, United States

Coauthors: Harriet Bulkeley

Vertical Dimensions of the Sustainable Development Regime: Middle-Level Structures for Implementation

Author: Lynn Wagner, Earth Negotiations Bulletin/International Institute for Sustainable Development (IISD), United States

Coauthors: Elisabeth Corell

Between a Rock and a Hard Place: Environmental Policy in the Era of Globalization and Hegemony

Author: Hermann Ott, Climate Policy Division, Wuppertal Institute for Climate, Environment and Energy, Germany

Fri-am-03 How to Improve the Empirical Base for Integrated Global Change Research?

Room: Argenteuil

Chair: Herman Lotze-Campen, Potsdam Institute for Climate Change Research, Germany
Discussant: Sylvia Karlsson, Yale University, United States

Measuring Sustainable Development

Author: Thomas Parris, ISciences, LLC, United States

Coauthors: Robert W. Kates

Infrastructure to Support the Sustainability Monitoring

Author: Brent Yarnal, Center for Integrated Regional Assessment, Penn State University, United States

Modelling Sustainable Development

Author: Jasper Grosskurth, International Centre for Integrative Studies (ICIS), Netherlands

Coauthors: Dale S. Rothman

Geoscope: a tool for sustainability impact assessment

Author: Marina Fischer-Kowalski, IFF Social Ecology, Austria

Coauthors: Carlo C. Jaeger

Fri-am-04 The Interactions between Global Environmental Change and Urban Processes (Session 1)

Room: Picardie A

Chair: Roberto Sanchez, Department of Environmental Studies, University of California, Santa Cruz, Mexico

Discussant: David Simon

The environment and health among the poor of Dhaka City: the implications of global environmental change for the urban poor of a developing world megacity

Author: Bruce Caldwell, National Centre for Epidemiology and Population Health, The Australian National University, Australia

A Tale of Two Deltas: Drivers and Outcomes of Urban Development.

Author: Karen Seto, Institute for International Studies, Center for Environmental Science & Policy, Stanford University, United States

Climate variability and climate change in a urban watershed region.

Author: William Solecki, Monclair State University, United States

Coauthors: Cynthia Rosenzweig

Social and urban vulnerability to climate variability in Tijuana, Mexico.

Author: Roberto Sanchez, Department of Environmental Studies, University of California, Santa Cruz, Mexico

Coauthors: Nora Bringas, Francisco Lares, Teresa Cavazos

Fri-am-05 The Dutch Knowledge-Network on System Innovations (KSI): Shaping the Sustainability Arena? (IHDP IT session 1)

Room: Picardie B

Chair: Jan Rotmans, International Centre for Integrative Studies (ICIS), Maastricht University, Netherlands

Introducing the NIDO-KSI initiative

Author: Colette Alma, NIDO, Netherlands

Coauthors: Jan Rotmans

Research on historical transitions and system innovations

Author: Johan Schot, Technical University Eindhoven, Netherlands

Research on current and future transitions and system innovations

Author: Jan Rotmans, International Centre for Integrative Studies (ICIS), Maastricht University, Netherlands

Research on current and future transitions and system innovations

Author: John Grin, University of Amsterdam, Netherlands

Coauthors: R. Smits

Fri-am-06 Population and Environment Research: Taking Stock and Looking Forward

Room: Auteuil A

Chair: Sara Curran, Princeton University, United States

Discussant: Daniel Hogan, University of Campinas, Brazil

Population, Agricultural Land Use and the Environment in Latin America at the Turn of the Millennium

Author: David Carr, Carolina Population Center, University of North Carolina, United States

Coauthors: Richard Bilsborrow, Alisson Barbieri

Quantifying the Spatial Issues in Human Dimensions Research

Author: Deirdre M Mageean, Department of Resource Economics and Policy, University of Maine, United States

Coauthors: Raymond J. O'Connor, Suzanne Cashman Rain, N. Scott Urquhart

Frontiers in the Application of Sub-National Data in Population, Development and Environment Research

Author: Alexander de Sherbinin, CIESIN, Columbia University, United States

Challenges in understanding human impacts on land-use and land-cover change

Author: Stephen Walsh, University of North Carolina, Chapel Hill, United States

Coauthors: Billie Turner II, Ronald Rindfuss, Vinod Mishra, Jefferson Fox

Fri-am-07 Institutional Dimensions of Global Environmental Change: Fit Interplay and Scale

Room: Anjou A

Chair: Syma Ebbin, Yale University, United States

Institutional Interaction: The European Dimension

Author: Sebastian Oberthür, University of Bamberg and Ecologic, Germany

Regime inter-linkages in biotechnology governance

Author: Aarti Gupta, Transparency International, Germany

Pure Public Goods Versus Commons: Benefit-Cost Duality

Author: Daniel Arce, Rhodes College, United States

International Regimes and Organisations: Exploring Institution-Organisational Interplay

Author: Frank Biermann, Global Governance Project, Potsdam Institute for Climate Impact Research (PIK), Germany

Coauthors: Steffen Bauer

Institutional Dimensions of International Public Forest Policies

Author: Joerg Albrecht, Deutsche Gesellschaft fuer Technische Zusammenarbeit (GTZ) GmbH, Indonesia

Coauthors: Andreas Obser

Fri-am-08 Adapting to Global Change: The role of social networks and institutions**Room: Anjou B**

Chair: Karen O'Brien, CICERO, Norway

Carbon for farmers: Linking carbon sequestration with poverty alleviation in smallholder farming systems

Author: Petra Tschakert, Arid Lands Resource Sciences, University of Arizona, United States

Rural Vulnerability to Global Change: The Role of Social Networks

Author: Linda Sygna, Center for International Climate and Environmental Research - Oslo, Norway

Coauthors: W. Neil Adger

Understanding institutional adaptation to climate change: Comparative case studies of responses to floods at the municipal level in Norway

Author: Lars Otto Naess, Center for International Climate and Environmental Research - Oslo (CICERO), Norway

Coauthors: Guri Bang, Jonas Vevatne

Social capital and the micropolitics of vulnerability

Author: Mark Pelling, University of Liverpool, United Kingdom

Fri-am-09 Assessment of High-Risk Natural Disaster Hotspots**Room: Auteuil B**

Chair: Robert S. Chen, CIESIN, Columbia University, United States

Harnessing potential of satellite data for visualizing and communicating dynamics of environmental changes

Author: Ashbindu Singh, United Nations Environment Programme, United States

Coauthors: Mark Ernste, Gene Fosnight, Kim Giese

Georeferenced Population Data: Implications for Development Policy

Author: David Rain, International Programs Center, U.S. Census Bureau, United States

Assessment of High-Risk Natural Disaster Hotspots of Sri Lanka

Author: Vidhura Ralapanawe, Ralapanawe Associates, Sri Lanka

Coauthors: Lareef Zubair

Identifying Natural Disaster Hazard Hotspots: Global, Multi-Hazard Risk Maps

Author: Gregory Yetman, CIESIN, Columbia University, United States

Images of Changing Environments Digital Atlas

Author: Eugene Fosnight, UNEP GRID Sioux Falls, United States

Coauthors: Michelle Anthony, Matthew Orstad

Lunchtime Session**Open Forum on the Implementation Plan of the Global Carbon Project (a joint project of IGBP, IHDP, and WCRP)**

Time: 12:30-14:00

Room: Argenteuil

The main goal of the Global Carbon Project (GCP) is to “develop a complete picture of the global carbon cycle, including both its biophysical and human dimensions together with the interactions and feedbacks between them.” The Forum will raise and frame GCP questions that integrate and reflect human dimensions issues, help setting an agenda for addressing these questions and engage the broader human dimensions community in the project implementation.

A brief introduction of the Implementation Plan (by Pep Canadell) will be followed by short presentations framing the human dimensions questions within the three focus areas of this Plan. The first presentation on 'Patterns and Variability' (Mike Apps) will address questions of space-time patterns of human influences on the carbon cycle, including emissions from fossil fuel burning and land-use practices. The second presentation on 'Mechanisms and Feedbacks' (Patricia Romero Lankao) outlines the need to understand the controls and feedback mechanisms that determine the dynamics of the coupled carbon-climate-human system. The third presentation on 'Future Dynamics' (Anand Patwardhan) will pose the question how science and analysis can inform the process of carbon management to achieve a sustainable carbon future. The second part of the Forum will be devoted to an open discussion (chaired by Oran Young).

Based on the discussion a position paper will be prepared, including a draft human dimensions agenda for the contribution to the GCP and a set of research activities that take this science agenda forward. This agenda will be followed-up by the Secretariats of GCP and IHDP.

Speakers include:

Pep Canadell - Integrating Human Dimensions into Global Carbon Research: Introduction to the implementation plan of the Global Carbon Project (GCP)

Mike Apps - Integrating Human Dimensions into Global Carbon Research: Framing the questions of focus one of the GCP implementation plan: Patterns and Variability

Patricia Romero Lankao - Integrating Human Dimensions into Global Carbon Research: Framing the questions of focus two of the GCP implementation plan: Mechanisms and Feedbacks

Anand Partwardan - Integrating Human Dimensions into Global Carbon Research: Framing the questions of focus three of the GCP implementation plan: Future Dynamics

Plenary: Governance of Pollution Issues

Time: 14:00 - 15:30

Room: Grand Salon A & B

Societies have sought to manage pollution problems with a variety of governance instruments. Over the past ten years a great deal of new research has deepened our understanding of the relative effectiveness of these different instruments, their patterns of diffusion and adoption, and the conditions under which they succeed or fail. This plenary session takes stock of these and related issues to help set priorities for future work.

Moderator: Mr. Marc Levy, Center for International Earth Science Information Network (CIESIN), Columbia University, United States

Speaker: Dr. Roberto Guimaraes, Director, Sustainable Development Division, United Nations Economic Commission for Latin America and the Caribbean (ECLAC), Chile

Commentator: Dr. Eduardo Viola, Professor of Political Science, University of Brasilia, Brazil

Coffee Break

Time: 15:30 -16:00

Room: Grand Salon Foyer

Concurrent Panel Sessions

Time: 16:00 -17:30

Fri-pm-01 Human Dimensions of Environmental Management: Integration, Scale, and Institutional Limits

Room: Alfred Rouleau A

Chair: Hadi Dowlatabadi, University of British Columbia, Canada

Discussant: B L Turner II, Clark University, United States

Do humans cause deserts? An old problem through the lens of a new framework: the Dahlem Desertification Paradigm

Author: James Reynolds, Duke University, United States

Coauthors: D. Mark Stafford-Smith, Eric Lambin

Multiple scales and regulatory mismatches in global change processes: the case of salmon aquaculture in British Columbia

Author: Tim McDaniels, University of British Columbia, Canada

Incorporating cross-scalar dynamics into environmental impact assessment

Author: Michelle Boyle, University of British Columbia, Canada

Coauthors: Hadi Dowlatabadi

Living in groups, dying alone: the social dimensions of health and their relevance to global environmental change

Author: James Tansey, University of British Columbia, Canada

Let them breath smoke

Author: Eric Mazzi, University of British Columbia, Canada

Coauthors: Hadi Dowlatabadi

Fri-pm-02 Early Warning and Preparedness

Room: Alfred Rouleau B

Chair: Neil Leary, Assessments of Impacts and Adaptations to Climate Change in Multiple Regions and Sectors (AIACC) Project, START, United States

Human Dimension of Climate Change Activities in Jamaica and the Caribbean

Author: A. Anthony Chen, Department of Physics, University of the West Indies, Mona, Jamaica, Jamaica

Water, institutions and knowledge: a comparative analysis of decisionmaking in Arizona, United States and Cear, Brazil.

Author: Maria Carmen Lemos, School of Natural Resources and Environment, University of Michigan, United States

Climate Change Information: Reaching Decision Makers and the Public

Author: W. Christopher Lenhardt, CIESIN, Columbia University, United States

Coauthors: Roberta Balstad Miller

The Stages of Natural Hazard Mitigation and Preparation

Author: Nancy Beller-Simms, Human Dimensions of Global Change Program, US National Oceanic and Atmospheric Administration/UCAR, United States

Sustainable Development Indicators for Global Change in the Philippines: Local Communities' Meanings and Interpretations

Author: Maricel Tapia, Environmental Forestry Programme, College of Forestry and Natural Resources, University of the Philippines Los Baños, Philippines

Coauthors: Rodel D. Lasco

Fri-pm-03 Data on the Human Dimensions of Environmental Change: Lessons from the Past and Opportunities for the Future

Room: Argenteuil

Chair: Michael Goodchild, University of California, Santa Barbara, United States

Human Dimensions Data: A View from the Data Management Community

Author: Robert Chen, CIESIN, Columbia University, United States

Coauthors: W. Christopher Lenhardt

Institutions as Drivers and Responses: A Critical Assessment of Data Needs

Author: Ronald Mitchell, Department of Political Science, University of Oregon, United States

Coauthors: Marc Levy

Can this Research Program be Saved? Supporting Sustainable Development Research with Useful Data

Author: Marc Levy, CIESIN, Columbia University, United States

Coauthors: Alex de Sherbinin

Spatial Demography: The experience and future of rendering population data useful for human dimensions research

Author: Deborah Balk, CIESIN, Columbia University, United States

Coauthors: Uwe Deichmann

Fri-pm-04 The Interactions between Global Environmental Change and Urban Processes (Session 2)

Room: Picardie A

Chair: Roberto Sanchez, Department of Environmental Studies, University of California, Santa Cruz, Mexico

Discussant: Chris Cocklin

Politics and Discourse: the Making of Low-Income Housing in Egypt

Author: Aboul-Fetouh Saad Shalaby, Faculty of Urban and regional Planning, Cairo University, Egypt

Drivers of Land Use Changes in Peri-Urban Areas of the Dar es Salaam City, Tanzania.

Author: Aloyce Masanja, University College of Lands and Agricultural Studies, Department of Urban and Regional Planning, Tanzania

Bringing together environmental science and urban planning policy: case studies of Minsk, Mogilev and Vitebsk in Belarus

Author: Maria Falaleeva, Faculty of Geography, Belarus State University, Belarus

Coauthors: Anton Shkaruba, Liudmila Elizarava

Settlers of Noman's land. Vulnerabilities of an urbanized village. The case of Bengare in Mangalore, Coastal Karnataka, India.

Author: Gururaja Budhya, Technology Informatics Design Endeavour (TIDE), India

Greenhouse Gasses, Transportation and Urban Development: A placed-based approach for understanding and mitigating greenhouse gas emissions from transportation in urban areas.

Author: Robert Neff, Penn State University, United States

Fri-pm-05 Transitions Towards Sustainability: How to Understand Them? (IHDP IT Session 2)

Room: Picardie B

Chair: Boelie Elzen, Centre for Studies of Science, Technology and Society, University of Twente, Netherlands

The Eve of Transition. Themes and challenges to understand and induce transitions

Author: Boelie Elzen, Centre for Studies of Science, Technology and Society, University of Twente, Netherlands

What do we know about transitions from historical examples? Lessons from the transition from horse-and-carriage to automobiles

Author: Frank Geels, Eindhoven University, Netherlands

Characterizing large-scale technological transitions in the context of Indian economy with a generic framework and its application in the transport sector energy efficiency, particularly with the fuel switching options

Author: Mahesh Patankar, SJM School of Management, Indian Institute of Technology, Bombay, India

Coauthors: Anand Patwardhan

Give Peas a Chance: Transformations in Food Consumption and Production Systems

Author: Ken Green, CROMTEC/Institute of Innovation Research, Manchester School of Management, UMIST, Manchester, UK, United Kingdom

Coauthors: Andrew Flynn

Fri-pm-06 Population, Poverty and the Environment: Case Studies from Around the World

Room: Auteuil A

Chair: Alexander de Sherbinin, CIESIN, Columbia University, United States

Spatial Pressure and degradation of the Environment in Yaounde, Cameroon.

Author: Hénoek Blaise Nguendo Yongsi, Laboratoire d'épidémiologie et de Santé Publique, Centre Pasteur du Cameroun, Cameroon

Do migrants degrade coastal environments? Migration, natural resource extraction and poverty in North Sulawesi, Indonesia

Author: Susan Cassels, Princeton University, Office of Population Research, United States

Coauthors: Sara Curran

Role of Afforestation and Reforestation for Sustaining Biodiversity and Livelihood: A case from Southern Western Ghats, India

Author: Nagaraja Chikkarangappa, Centre For Ecological Sciences, Indian Institute of Science, India

Coauthors: Jagannatha Rao, P. Sudha and N.H. Ravindranath

Village Settlement and Land Use-Land Cover Change in a Frontier Region: Nang Rong, Thailand

Author: Barbara Entwisle, Carolina Population Center, University of North Carolina-Chapel Hill, United States

Coauthors: Jeffrey Edmeades, George Malanson, Chai Podhista, Pramote Prasartkul, Ronald R. Rindfuss, Stephen J. Walsh

Poverty livelihood and biodiversity conservation nexus: an analysis of the Equator Initiative's award recipients

Author: Renata Rubian, McGill University and Université du Québec à Montréal (UQAM), Canada

Coauthors: Julie Crowley

Fri-pm-07 Institutional Dimensions of Global Climate Change**Room: Anjou A**

Chair: Syma Ebbin, Yale University, United States

The importance of institutional baseline descriptions for assessing vulnerability to global change: examples from northern Norway, Sweden and Finland

Author: E. Carina H. Keskitalo, International Relations, Department of Social Studies, University of Lapland, Finland

Post-Kyoto Regime : Alternative Scenarios

Author: Taishi Sugiyama, Central Research Institute of Electric Power Industry, Japan

Lessons learned from the policy-interlinkage issues between the Montreal Protocol and climate change agreements for the design of more effective environmental regimes.

Author: Yasuko Matsumoto, National Institute for Environmental Studies, Japan

The Institutional Dimension of Vulnerability, Resilience, and Adaptation to Global Climate Change

Author: Agus Sari, Pelangi, Indonesia

Improving Scientific Assessment of Carbon Sinks

Author: Atsushi Ishii, Climate Change Research Project, National Institute for Environmental Studies, Japan

Fri-pm-08 Adaptive Capacity: Towards a Useful Theory**Room: Anjou B**

Chair: Anthony Patt, Potsdam Climate Change Research Institute, Germany

Enhancing adaptive capacity for managing the projected effects of climate change via local means: Community-based arrangements for collective security in a South African informal settlement

Author: Alexander Arnall, Imperial College Centre for Energy Policy and Technology, United Kingdom

Modelling the vulnerability of eco-social systems to global change: Human adaptive capacity to changes in ecosystem service provision

Author: Dagmar Schröter, Potsdam Institute for Climate Impact Research, Germany

Coauthors: Lilibeth Acosta-Michlik, Richard J.T. Klein

Adaptive Capacity and Human Cognition

Author: Torsten Grothmann, Potsdam Institute for Climate Impact Research, Germany

Coauthors: Anthony Patt

Building eco-social resilience of a rural watershed on the Canadian prairies: A climate change adaptation strategy

Author: Cynthia Neudoerffer, Rural Studies, Faculty of Environmental Design and Rural Development, University of Guelph, Guelph, Ontario, Canada

Coauthors: David Waltner-Toews

Vulnerability and Adaptation of Watershed Communities

Author: Juan Magboo Pulhin, University of the Philippines Los Banos, Philippines

Fri-pm-09 National Perceptions of Climate Change**Room: Auteuil B**

Chair: Mirosław Sobolewski, Parliamentary Bureau of Research, Institute for Sustainable Development, Poland

Global Warming and the U.S. Media: Dissecting Biased Coverage in Journalism

Author: Maxwell Boykoff, Environmental Studies department, University of California, Santa Cruz, United States

Coauthors: Jules Boykoff

Access to Information and Public Participation in Climate Protection Activities in Poland

Author: Mirosław Sobolewski, Parliamentary Bureau of Research, Institute for Sustainable Development, Poland

Coauthors: Zbigniew M. Karaczun, Andrzej Kassenberg

Assessing Policy Responses to Climate Change at the National Level. Formulation of the Finnish Climate Strategy.

Author: Anu Kerkkänen, Department of Regional Studies and Environmental Policy, University of Tampere, Finland, Finland

Climate Change Policy Instruments For Diffusion of Cleaner Technologies In the Small Scale Industries in India

Author: Preeti Soni, Institute for Environmental Studies, Vrije University (IVM, VU), Amsterdam and Institute for New Technologies (UNU-INTECH), Maastricht, The Netherlands, India

Banquet Dinner

Time: 19:00-22:00

Room: Jeanne Mance

Full registrants are invited to attend this banquet dinner as part of their registration package. Student and day registrants may purchase tickets to this event at the Open Meeting Registration Desk for CAN\$55.00. The banquet will be buffet style, and a vegetarian dinner option will be available. The evening's entertainment will be a performance by "The Eastern Door Dancers", a well-known troupe of Native American Traditional Dancers. The event is not to be missed!

Saturday, October 18

Plenary: Climate Change and Agriculture

Time: 8:30-10:00

Room: Grand Salon A & B

Effective Human Dimensions research must often come to grips with the special difficulties of understanding interactions among complex dynamic systems. This plenary session focuses on one particularly important set of such interactions, involving the climate and agricultural systems. These two systems both are influenced greatly by human activities and have large impacts on human well-being, in ways that are on their own terms challenging to understand. The ways in which they interact – how climate change affects crop productivity and food security, for example – are even more challenging and no less important.

Moderator: Dr. Aston Chipanshi, Agriculture & Agri-Food Canada, Canada

Speaker: **Dr. Vaclav Smil, Distinguished Professor of Geography, University of Manitoba, Canada**

Commentator: **Dr. Cynthia Rosenzweig, Research Scientist, NASA's Goddard Institute of Space Studies, Columbia University, United States**

Coffee Break

Time: 10:00-10:30

Room: Grand Salon Foyer

Poster Session

Time: 10:00-17:30

Room: Grand Salon Foyer

Posters are grouped according to keywords in the foyer just outside the Grand Salon. Poster presenters are requested to stand by their posters during the morning and afternoon coffee breaks.

Attitudes and Behavior

1. *Perception of Decision Makers about Global Environmental Issues and its gaps between general public in Japan*
Author: Midori Aoyagi-Usui, National Institute for Environmental Studies, Japan
2. *Inspiring Regional Viewpoints from Citizens for Environmental Planning*
Author: Shinobu Kitani, Tohoku University, Japan
3. *Harmonization of Forest Practices and Knowledge Brokerage via Participatory Communication*
Author: Brian Sarwer-Foner, McGill University: Communications, McGill School of Environment, Canada
4. *Assessment of social vulnerability and adaptation to climate variability and change among farmers in central Argentina: importance of the subjective dimension*
Author: María Cecilia Maurutto, Universidad Nacional de Rio Cuarto, Argentina
Coauthors: Marta G. Vinocur, Cesar Quiroga, Roberto A. Seiler
5. *Perceptions of Climate change among different sectors in the Mexican population*
Author: Cecilia Conde, Centro de Ciencias de la Atmosfera, UNAM, Mexico
Coauthors: Rosa Maria Ferrer

6. *Environmental transitions, possession of means of transport, and lifestyles in an urban environment*
Author: Hamdou-Rabby Wane, Independent Researcher, Mali

Climate Change

7. *Vulnerability to climate change of Moldova's agriculture and food systems: some estimations*
Author: Roman Corobov, US-Moldova CRDF project, Moldova
Coauthors: Sergiy Chealik
8. *Man Made Impacts On Greenhouse Gases Emissions in India: Identification of Major Dimensions and Planning for Sustainable Development for a Healthy Future*
Author: Shanmuganandan Samarajalingam, Madurai Kamaraj University, India
Coauthors: B. Sukumar
9. *Climate change and food security in Vietnam*
Author: Van Viet Nguyen, Agrometeorological Research Center of Vietnam, Vietnam
Coauthors: Ngo Tien Giang
10. *Climate Science as An Institutional Force in Climate Policymaking in Taiwan*
Author: Ho Ching Lee, Chung-Yuan Christian University, Taiwan
11. *Individual temperature exposures among aged people in relation to the estimated increases of heat-wave induced mortality risk due to global warming in Japan and China*
Author: Michinori Kabuto, National Institute for Environmental Strategies, Japan
Coauthors: Yasushi Honda
12. *The Global Carbon Project: Objectives and Implementation*
Author: Josep Canadell, Global Carbon Project, International Project Office, CSIRO Land and Water, Canberra, Australia, Australia
13. *Media communication and environmental risks: the case of climate change and coastal protection*
Author: Harald Heinrichs, Program Group: Humans, Environment, Technology, Research Center Jülich, Germany
Coauthors: Hans Peter Peters
14. *Assessing the Role of Wood Products In Mitigating Climate Change*
Author: Florencia Pulhin, University of the Philippines Los Baños, Philippines
15. *Crop Simulation Using GIS-Based Crop Production Model*
Author: Priya Satya, RMSI, India
16. *The Effect of ISO 14001 on CO2 Production in Electric Power Generation Facilities*
Author: Eric Welch, University of Illinois at Chicago, United States
Coauthors: Akira Hibiki

Environmental and Ecological Economics

17. *Economic Benefits and Conservation Linkages From Tourism Development in the Sikkim Himalaya, India*
Author: Suresh Chand Rai, G.B. Pant Institute of Himalayan Environment and Development, India
18. *Bulgarian environmental status in the transition period to the market economy*
Author: Daniela Zlatunova, Sofia University, Bulgaria
Coauthors: Peter Slaveikov
19. *Coastal fisheries in Maharashtra state with special reference to present social and environmental scenario*
Author: Balasaheb Kulkarni, The Institute of Science, University of Mumbai, India
Coauthors: J. P. Dighe
20. *Environmental Economics and the interdisciplinary debate in the Human Dimension of Global Change: Challenges and Perspectives*
Author: Tatiana Schor, Programa de Pós-graduação em Ciência Ambiental, Universidade de São Paulo, Brazil

21. *The assessment of rapid landuse change detection due to the sustainability of fisheries sector*
 Author: Dewayany Sutrisno, National Coordination Agency for Survey and Mapping, Indonesia
22. *Economic Waste Management System for Ecological Sanitation in India*
 Author: Lalitkumar Chaudhari, Institute for sustainable development and Research, India
 Coauthors: A.G.Bhole, A.S.Yevale
23. *The Folk Conceptualization of Property and Economic Flows in Rural Madagascar*
 Author: Frank Muttenzer, Graduate Institute of Development Studies, Switzerland
24. *Acquisition of the Certificate of ISO14001 in Japan and its Valuation of the Market*
 Author: Akira Hibiki, National Institute for Environmental Studies, Japan
 Coauthors: Masato Higashi, Akimi Matsuba
25. *Carbon Gas Production and Consumption in the Surface Sediments of Two Eutrophic Reservoirs*
 Author: Donald D. Adams, SUNY Plattsburgh, United States
- Environmental Security***
26. *Human Security: Building Institutional Frameworks for Natural Disasters Risk Reduction*
 Author: Elena Nikitina, Institute of World Economy and International Relations, Russian Academy of Sciences, Russia
 Coauthors: Vladimir Kotov, Fabien Nathan
27. *Vulnerability and Adaptation to Sea Level Rise: First Lessons Learned in the Caspian Region*
 Author: Elena Ostrovskaya, Caspian Marine Research Institute, Astrakhan, Russia
- Health and the Environment***
28. *Vulnerability to Environmental Health Risks in Developing Countries*
 Author: Ben Arimah, University of the West Indies, Mona Campus, Jamaica
29. *Using meteorological and air quality monitoring data to understand community health impacts of air pollution*
 Author: Barbara Kerr, New Brunswick Lung Association, Canada
 Coauthors: David Brown, Barbara MacKinnon, Kenneth Maybee
30. *Air Pollution Mortality Cost in Angul-Talcher Urban Area in Orissa, India: An Economic Analysis*
 Author: Mrutyunjaya Mishra, Science College, India
31. *An investigation into the human ecological determinants of Anopheles larval site development and mosquito control activities in a malaria endemic area of coastal Kenya*
 Author: Joseph Keating, Department of Interantional Health and Development, Tulane University, United States
 Coauthors: Kate Macintyre, John C. Beier, Charles Mbogo, John I. Githure, Samuel Kahindi, Lydiah Kibe
32. *Air Pollution Affects Human Health in Mega Cities of India*
 Author: Nagdeve Dewaram Abhiman, International Institute for Population Sciences, India

Concurrent Panel Sessions

Time: 10:30 -12:00

Sat-am-01 Millennium Ecosystem Assessment

Room: Alfred Rouleau A

Chair: Marc Levy, CIESIN, Columbia University, United States

Millennium Ecosystem Assessment: Conceptual Framework

Author: Thomas Dietz, University of Michigan, United States

Millennium Ecosystem Assessment: Responses

Author: Ben S. Malayang III, University of the Philippines, Los Banos, Philippines

Millennium Ecosystem Assessment: Scenarios

Author: Gary Peterson, University of Wisconsin, United States

The Challenge of Integration: Insights from integrated natural resource management research by the Alternatives to Slash-and-Burn Programme

Author: Tom Tomich, CGIAR, Kenya

Sat-am-02 Vulnerability to Multiple Stressors: Globalization and Climate Change

Room: Alfred Rouleau B

Chair: Karen O'Brien, CICERO, Norway

Discussant: Roberto Sanchez, University of California Santa Cruz, United States

Four-tired Approach of Diagnostics, Field Campaigns, Laboratory Experiments, and Modeling to Understand the Linkages between Climate Variability and Malaria Outbreaks in Colombia.

Author: German Poveda, School of Geosciences and environment, Universidad Nacional de Colombia, Medellin, Colombia

Coauthors: M.L. Quinones, I.D. Velez, G.L. Rua, W. Rojas, D. Ruiz, L.E. Velasquez, J.S. Zuluaga, O.Hernandez, E. Zapata

The impact of economic liberalisation on climate vulnerability among farmers in Mozambique

Author: Siri Eriksen, CICERO - Centre for International Climate and Environmental Research - Oslo, Norway

Coauthors: Julie Silva

Mapping Multiple Stressors: Climate Change and Economic Globalization in India

Author: Robin Leichenko, Department of Geography, Rutgers University, United States

Coauthors: Karen O'Brien, Ulka Kelkar, Henry Venema, Guro Aandahl, Heather Tompkins, Akram Javed, Suruchi Bhadwal, Stephen Barg, Jennifer West

Does climate risk matter? Agricultural adaptation in a "multi-stressor" context: Three cases from Mexico

Author: Hallie Eakin, Center for Atmospheric Sciences, National Autonomous University of Mexico, Mexico

Neoliberalism and global environmental change in Latin America

Author: Diana Liverman, Department of Geography, University of Arizona, United States

Sat-am-03 Innovation and Technology for Managing Human-Environment Systems

Room: Argenteuil

Chair: Rolf Wüstenhagen, Institute for Economy and the Environment (IWÖ-HSG), University of St. Gallen, Switzerland

The global spread of environmental policy innovations. An analysis and distinction of diffusion processes

Author: Per-Olof Busch, Global Governance Project, Environmental Policy Research Centre, Freie Universitaet Berlin, Germany

Coauthors: Helge Joergens

Institutional Change During Phases of Technological Transition: The Case of the Dutch Waste Management Sector

Author: Saeed Parto, MERIT, Netherlands

Coauthors: Derk Loorbach

System innovations: the role of public contract research organisations

Author: Arnold Tukker, TNO-STB, Netherlands

Coauthors: Maurits Butter

Innovative and Sustainable Energy Technologies: The Role of Venture Capital

Author: William Moore, Institute for Economy and the Environment (IWÖ-HSG), University of St. Gallen, Switzerland

Coauthors: Rolf Wüstenhagen

Sat-am-04 Sustainable Compact City and its Facilitation

Room: Picardie A

Chair: Tatsuo Itoh, Japan

Comprehensive framework for city evaluation on sustainable compact city development

Author: Yasuaki Hijioaka, Social & Environmental Systems Division, National Institute for Environmental Studies, Japan

Coauthors: Hideo Harasawa, Shiro Kawai, Yusuke Mitsuoka, Rieko Nakao

Holistic Facilitation of Compact City Based on Information System

Author: Akira Kinoshita, Tohoku Bunka Gakuen University, Japan

Compact City And Developing Countries -Is Compact City Approach Appropriate as an Urban Development Policy for Cities in Developing Countries?-

Author: Hideki Kaji, Faculty of Policy Management, Keio University, Japan

Coauthors: Hidehiko Kanegae, Kenichi Ishibashi, Nobuhiro Hara

Compact City and Local Governments' Strategy: Emphasis on the Household Waste Management for Establishing a Recycling-based Society

Author: Masakazu Ito, Nagoya Sangyo University, Japan

Coauthors: Kiyoshi Okamura, Aki Suwa, Jun Izumi, Tetsuo Kato

Where the global meets the local? Sustainable cities and global environmental governance

Author: Harriet Bulkeley, Department of Geography, University of Durham, United Kingdom

Sat-am-05 Transitions Towards Sustainability: How to induce them? (IHDP IT Session 3)

Room: Picardie B

Chair: Boelie Elzen, Twente University, Netherlands

Shaping Socio-ecological Transformations. Problems of Uncertainty, ambiguous goals, distributed control and the prospect of evolutionary governance.

Author: Jan-Peter Voss, Oeko-Institut - Institute for Applied Ecology, Germany

Stakeholder participation in research on transitions towards sustainability. A methodological perspective

Author: Marleen van de Kerkhof, Institute for Environmental Studies (IVM), Vrije Universiteit, Netherlands

Coauthors: Anna J. Wieczorek

Governance for Sustainability through Transition Management

Author: Rene Kemp, MERIT, Maastricht University, Netherlands

Coauthors: Derk Loorbach

Delegating the responsibility for environmental transitions - are innovations in renewable energy a system, policy or market responsibility?

Author: Ulrik Jørgensen, Dept. of Manufacturing Engineering and Management, Section for Innovation and Sustainability, Technical University of Denmark, Denmark

Sat-am-06 Biodiversity and Environmental Mitigation**Room: Auteuil A**

Chair: Vijay Laxmi Pandey, Indira Gandhi Institute of Development Research, India

Sustaining productivity through Resource Conservation Technologies in the rice wheat farming system of Indo-Gangetic Plains of India

Author: Vijay Laxmi Pandey, Indira Gandhi Institute of Development Research, India

Coauthors: Ganesh Prasad

Global Regime for Biodiversity as an approach to study local level experiences. The Mamirauá Case.

Author: Cristina Yumie Aoki Inoue, Department of International Relations, Center for Sustainable Development, University of Brasília, Brazil

Role of natural ecosystems in the environmental regulation of carbon circulation

Author: Maria Ananicheva, Institute of geography, Russian Academy of Sciences, Russia

Coauthors: Kim S. Losev

Biodiversity in a global change and multi-level governance perspective

Author: Marc Hufty, Graduate Institute of Development Studies, Switzerland

Forest Conservation and Revival of Local Health Traditions - A Forest Department Initiative

Author: Shreekantaiah, G.N., Karnataka Forest Department, India

Coauthors: P. Sudha

Sat-am-07 Regulations and Environmental Change**Room: Anjou A**

Chair: Peter G. Brown, McGill University, Canada

Regulating Economic Growth through Financial Organisations

Author: Benjamin Richardson, Osgoode Hall Law School, York University, Canada

International Legal Framework of Intellectual Property Rights and Autochthonous peoples in Amazon

Author: Marcelo Varela, University Centre of Brasilia, Brazil

The Judiciary as a Venue for Environmental Education and Advocacy: The Philippine Experience

Author: Roberto Oliva, Philippine Environmental Governance Project, Philippines

Workable environmental law and the international dimension: puzzling to cherency

Author: Marjan Peeters, Universitu Maastricht, Netherlands

Are There Any Natural Resources?

Author: Peter G. Brown, McGill University, Canada

Sat-am-08 Neoliberal Transitions in the Water Sector: Regional Implications**Room: Anjou B**

Chair: Patricia Romero Lankao, Dep. of Politics and Culture, Metropolitan Autonomous University, Campus Xochimilco, Mexico

Capital and water: A neo-Austrian perspective of sustainable development

Author: Holger Schlör, Research Centre Jülich, Programme Group System Analysis and Technology Evaluation, Germany

Water Resource Management and Climate Variability: Possibilities for Transboundary Knowledge Transfer on the U.S.-Mexico Border

Author: Barbara Morehouse, Associate Research Scientist, Institute for the Study of Planet Earth, The University of Arizona, Tucson, Arizona., United States

Water Reforms in Mexico City: Enhancing a sustainable management of water?

Author: Patricia Romero Lankao, Dep. of Politics and Culture, Metropolitan Autonomous University, Campus Xochimilco, Mexico

Neoliberal Water Reforms and Small-Scale Producers in Northern Mexico: Challenges and Opportunities

Author: Margarete Wilder, Assistant Research Social Scientist, Latin American Studies/Geography, University of Arizona, Tucson, Arizona., United States

Sat-am-09 Nutrient Cycles and Climate Change

Room: Auteuil B

Chair: Vaclav Smil, University of Manitoba, Canada

Stochastic modelling of bioenergy vs. carbon sinks at the global scale

Author: Fredrik Hedenus, Chalmers University of Technology, Sweden

Coauthors: Cristian Azar

Efficient Nitrogen Fertilization Management Using El Niño Forecasts

Author: Francisco Meza, Facultad de Agronomía e Ingeniería Forestal, Pontificia Universidad Católica de Chile, Chile

Decadal-Scale Dynamics of Land Ownership and Carbon Storage in the Southeastern Lower Coastal Plain Region of the U.S.

Author: Michael Binford, Department of Geography & Land Use and Environmental Change Institute (LUECI), University of Florida, United States

Coauthors: Gregory Starr, Henry Gholz, Grenville Barnes, Levent Genc, Scot E. Smith, Allison Fleming

Designing Optimal Allocation between Carbon Sequestration and Conventional Carbon Abatement

Author: Ram Ranjan, Pennsylvania State University, United States

Coauthors: James Shortle, Richard Horan

Sat-am-10 Scientific Knowledge, Controversy, and Assessment in Global-Change Regimes

Room: Hospitalité

Chair: Ted Parson, Harvard University, United States

Discussant: Peter Haas, University of Massachusetts, United States

The Usability of Science Advice to International Environmental Conventions

Author: Pia Kohler, Environmental Policy Group, Massachusetts Institute of Technology (MIT), United States

Good Governance: Institutional Change and Resilience in Less Developed Countries

Author: Neil E. Harrison, The Sustainable Development Institute, University of Wyoming, United States

Adaptive environmental policy and technological change: Technology-policy feedbacks in the international ozone-layer regime with lessons for the design of technology assessment processes.

Author: Edward Parson, John F. Kennedy School of Government, Harvard University, United States

Science Assessment and Acidification Control Policies in Europe and Asia

Author: Barbara Connolly, University of Notre Dame, United States

Lunchtime Sessions

Scale and Cross-scale Dynamics in Assessing and Addressing Global Environmental Change

Time: 13:00-14:00

Room: Argenteuil

Assessment and management regimes of environmental change are increasingly focusing on scale and cross-scale dynamics as critical dimensions to explore. In this roundtable discussion we will discuss the state of research on these issues and brainstorm new avenues of research and practice designed to understand and address global through local linkages in human-environment systems.

The organizer of this roundtable is David Cash, Harvard University, USA. The co-organizers of this roundtable are Neil Adger, University of East Anglia, UK; Fikret Berkes, University of Manitoba, Canada; David W. Cash, Harvard University, USA; Carl Folke, Stockholm; University, Sweden; Louis Lebel, Chiang Mai University, Thailand; Per Olsson, Stockholm University, Sweden; Lowell Pritchard, Emory University, USA; Oran Young, University of California, Santa Barbara, USA.

Roundtable on the New Strategic Plan of the United States Climate Change Science Program

Time: 13:00-14:00

Room: Auteil A

Moderator: Dr. Barbara Göbel, Executive Director, IHDP

Speaker: Dr. Richard Moss, Director, US Climate Change Science Program Office, United States

Plenary: Vulnerability to Climate Change

Time: 14:00 - 15:30

Room: Grand Salon A & B

During the last two decades, several studies have demonstrated the vulnerability of social systems and ecosystems to climate change. The tendency has been to concentrate on the meteorological evidence on one hand and incorporate the perspectives and concerns of social science later, thus talking past each other. This panel will provide a critical assessment of vulnerability from a social science perspective addressing significant omissions of many vulnerability assessment studies, e.g. disparity in scales of analysis (defining the vulnerable), the role of multiple stressors and underlying structures that shape up climate change vulnerability and translating scenario work from the abstract to reality. These, and other concerns will be addressed by this plenary.

Moderator: Dr. Coleen Vogel, University of Witwatersrand, South Africa

Speaker: Dr. Karen O'Brien, Center for International Climate and Environmental Research (CICERO), Norway

Commentator: Dr. Roger Kasperson, Executive Director, Stockholm Environment Institute, Sweden

Coffee Break

Time: 15:30 -16:00

Room: Grand Salon Foyer

Concurrent Panel Sessions

Time: 16:00 -17:30

Sat-pm-01 Environmentally Sustainable Energy Production

Room: Alfred Rouleau A

Chair: Shirish Sinha, Technology and Development Group, University of Twente, Netherlands

Waste Recycling for Biomass Electricity: A Comparison between India and China

Author: Ashish Rana, National Institute for Environmental Studies, Japan

Coauthors: Hongwei Yang, Toshihiko Masui

Towards Sustainable Charcoal Production and Consumption in Sub-Saharan Africa: A Proposed Integrated Approach

Author: Evans Kituyi, African Centre for Technology Studies, Kenya

Energy sector reforms and the rural energy - will the rural poor benefit?

Author: Shirish Sinha, Technology and Development Group, University of Twente, Netherlands

Cohort patterns of residential energy use in the U.S. and the outlook for future demand

Author: Mausami Desai, Global Environment Program, Watson Institute for International Studies, Brown University

Co-Author: Brian O'Neill

Sat-pm-02 Vulnerability and Adaptation Research in Southern Africa

Room: Alfred Rouleau B

Chair: Coleen Vogel, University of Witwatersrand, South Africa

Migration, Land Tenure, and Environmental Change: Legal Pluralism and Insecurity in Africa

Author: Jon Unruh, Department of Geography, and Center for the Study of Institutions, Population, and Environmental Change, Indiana University, United States

Coping With and Adapting to Drought in Zimbabwe

Author: Sithabiso Gandure, University of Witwatersrand, Zimbabwe

Coauthors: Coleen Vogel

Stakeholder engagement in community-based management of conservation areas: an example from northern Mozambique

Author: Patrick Mushove, University of Witwatersrand, Zimbabwe

Coauthors: Coleen Vogel

The Role of Regional and National Institutions in Improving Adaptation to Climate Stress in Southern Africa

Author: Emma Archer, Climate System Analysis Group, University of Cape Town, South Africa

Nutrition, Health and Environmental Quality in Adaptation to Climate Change: Concepts and Empirical Lessons from Tanzania

Author: Roger Few, University of East Anglia, United Kingdom

Coauthors: Jouni Paavola, Neil Adger

Sat-pm-03 The Precautionary Principle and Global Environmental Change: Taking Stock and Moving Forward

Room: Argenteuil

Chair: Steve Maguire, McGill University, Canada

The Precautionary Principle: Torn between Biodiversity and Environment-related Food Safety Regulations

Author: Urs P. Thomas, Dept. Public International Law, University of Geneva, Switzerland

Coauthors: Makane Moïse Mbengue

Business and the Precautionary Principle: From Divergent Perspectives to an Integrated Framework

Author: Steve Maguire, McGill University, Canada

Coauthors: Amelia Clarke

The Role of Science in Global Environmental Governance: Precaution, Scientisation or Deliberation

Author: Karin Backstrand, MIT, United States

Food innovation & environmental risks - argumentative discourse in social networks

Author: Fred Steward, BRESE (Brunel Research on Enterprise, Sustainability & Ethics), Brunel University, United Kingdom

Sat-pm-04 Urban Dimensions of Climate Change and Public Health

Room: Picardie A

Chair: William Solecki, Montclair University, United States

Heat stress mortality in the NYC metropolitan area: estimates for the 2050s using a linked global-regional climate modeling system

Author: Patrick Kinney, Mailman School of Public Health, Department of Environmental Health Sciences, Columbia University, United States

Coauthors: K. Knowlton, J. Rosenthal, C. Rosenzweig, W. Solecki, C. Hogrefe, B. Linn, R. Avissar

Climate Change and the Urban Heat Island Effect

Author: Cynthia Rosenzweig, NASA/Goddard Institute for Space Studies, United States

Coauthors: William D. Solecki

Global Analysis of Urban Settlement Patterns from Night Lights

Author: Christopher Small, Lamont-Doherty Earth Observatory, Columbia University, United States

Coauthors: Francesca Pozzi, Deborah Balk

Sat-pm-05 Industrial Transformation: Taking Stock of Regional Approaches (IHDP IT Session 4)

Room: Picardie B

Chair: Pier Vellinga, Vrije University, Netherlands

The protein food transition

Author: Harry Aiking, Institute for Environmental Studies, Vrije Universiteit, Netherlands

Conceptualizing, observing and managing societal transitions. Lessons from IHDP-IT research

Author: Marina Fischer-Kowalski, IFF Social Ecology, Austria

Towards de-carbonization of cities

Author: Shobhakar Dhakal, Urban Environmental Management Project, Institute for Global Environmental Strategies (IGES), Japan

Coauthors: Hidefumi Imura

Transformations in the Gas Sector of Russia over the Period of Reforms

Author: Nina Poussenkova, Institute of World Economy and International Relations, Russian Academy of Sciences, Russia

Transformation of Energy Systems in South Asia

Author: Leena Srivastava, TERI, India

Sat-pm-06 Economic and Social Aspects of Forest Management Systems

Room: Auteuil A

Chair: Juan Pulhin, University of the Philippines Los Banos, Philippines

Sustainable Forest Management in India - Role of Community in Joint Forest Management

Author: Sudha Padmanabha, Ecological and Economics Research Network, Centre for Ecological Sciences Indian Institute of Science, Malleswaram, Bangalore, India

Coauthors: Jagannatha Rao, B.C. Nagaraj, P.R. Bhat, N.H. Ravindranath

Tree Growing Investment Decisions of Smallholder Farmers in Claveria, Northern Mindanao, Philippines

Author: Canesio Predo, National Abaca Research Center, Leyte State University, Philippines

Coauthors: Herminia A. Francisco

Estimation and Economic Valuation of Carbon Sequestration Flows in Indian Forest in Income Accounting Framework

Author: Pushpam Kumar, Institute of Economic Growth, University of Delhi Enclave, India

Coauthors: Kanchan Chopra

Modeling Acceptance of Ecosystem Service Payments in Decision-Support Systems using Software Agents

Author: Raja Sengupta, Department of Geography, McGill University, United States

Sat-pm-07 Integrated Assessment for Sustainable Development

Room: Anjou A

Chair: Joe Alcamo, Center for Environmental Systems Research, University of Kassel, Germany

Sustainable Development in the Netherlands: an integrated analysis

Author: Jasper Grosskurth, International Centre for Integrative Studies (ICIS), Maastricht University, Netherlands

Prospects for Sustainable Development in Vietnam in the New Century

Author: Ninh Nguyen Huu, Center for Environment Research, Education and Development, Vietnam

Coauthors: Luong Quang Huy, Nei Adger, Mick Kelly

Assessing Agricultural Producers' Vulnerability to Climate Variability and Extremes: an Analytical Methodological Framework based on the Notion of Sustainability.

Author: Mónica Beatriz Wehbe, Departamento de Economía, Universidad Nacional de Río Cuarto, Argentina

Coauthors: Hallie Eakin, Cristian Santos, Martín Civitaresi

The Economic Costs of Slash-and-Burn Agriculture and Forest Fires in the Brazilian Amazon

Author: Maria del Carmen Vera Diaz, Instituto de Pesquisa Ambiental da Amazonia, Brazil

Coauthors: Daniel C. Nepstad, Ronaldo S. da Motta, Mário Jorge C. Mendonça, Ane Alencar and Ramon A. Ortiz

Sat-pm-08 Globalization and Environment

Room: Anjou B

Chair: Savas Alpay, Beykent University, Turkey

Globalization, environmental changes and local adaptive strategies in the Philippines

Author: Maria Victoria O. Espaldon, University of the Philippines, Philippines

Coauthors: Leonardo M. Florece

The Biosecurity Regime and Its implications to the Brazilian Citizens

Author: Ana Flavia Barros Platiau, University of Brasilia, Brazil

Industrial Migration in the Chemical Sector: Do Countries with Lax Environmental Regulations Specialize in Polluting Industries?

Author: Martin Persson, Department of Physical Resource Theory, Chalmers University of Technology, Sweden

Economic Development, Trade and Environmental Quality: Environmental Kuznets Curve Hypothesis in a Threshold Model

Author: Savas Alpay, Beykent University, Turkey

Sat-pm-09 Transition in Environmental Governance in Asia-Policy Implications at Local and Global Level

Room: Auteuil B

Chair: Ko Nomura, Institute for Global Environmental Strategies, Japan

Discussant: Andrea Deri

Local Assessments of Vulnerability and Adaptive Capacity: Implications for Designing Rational Climate Change Policies in Asia

Author: Srinivasan Ancha, Institute for Global Environmental Strategies, Japan

Globalisation and Localisation: Impacts on Institutional Dimension of Environmental Policy East Asia

Author: Harashima Yohei, Institute for Global Environmental Strategies/ Takushoku University, Japan

Environmental Governance in Asia: Problems and Prospects -Opinion Survey of Major Environmental Actors

Author: Ko Nomura, Institute for Global Environmental Strategies, Japan

The Polycentric Transition: Strategies for Multiple-Level Environmental Policy in Asia

Author: Gueye Moustapha Kamal, Institute for Global Environmental Strategies, Japan

Sat-pm-10 Adaptation and Environmental Security

Room: Hospitalité

Chair: Kojo Sebastian Amanor, Institute of African Studies, University of Ghana, Ghana

Taking Stock: The Evolution of Environmental Security Networks

Author: Peter Korhonen, Concordia University, Canada

Policy, Practice and Land Cover Change: Agricultural development and farming systems dynamics in the transition zone of Ghana

Author: Kojo Sebastian Amanor, Institute of African Studies, University of Ghana, Ghana

Coauthors: Opoku Pabi

Vulnerability of Indian agriculture to climate change and economic globalization

Author: Suruchi Bhadwal, TERI, New Delhi, India

Coauthors: Karen O'Brien, Robin Liechienko, Ulka Kelkar, Akram Javed, Suruchi Bhadwal, Guro Aandahl, Heather Tompkins, Stephan Barg and Henry Venema

Climate Variability and Decision Making Process: A case Study of Peasant Farmers in Southwestern Nigeria.

Author: Olusegun Ekanade, Department of Geography, Obafemi Awolowo University, Nigeria

Closing Plenary

Time: 17:30-18:30

Room: Grand Salon A & B

Distinguished panelists will, on the basis of presentations made at the 2003 Open Meeting, assess progress over the past decade in the human dimensions research agenda.

Moderator: Marc Levy, CIESIN, Columbia University, United States

- **Appendix B: Participants List**

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- **Appendix D: Acronyms**

APN	Asia-Pacific Network for Global Change Research
CERED	Center for Environment Research, Education and Development (Vietnam)
CIESIN	Center for international Earth Science Information Network, Columbia University (USA)
IISD	International Institute for Sustainable Development (Canada)